

REMARKS

Claims 1-47 and 50-88 are pending in the application. Claim 81 has been amended to correct an informality. In addition, claims 12-14, 20-23, 26-28, 61-61, 69, 71-72, and 75 have been amended to correct punctuation as suggested by the Examiner. Entry of the amendments to the claims is respectfully requested to further clarify issues for appeal. Reconsideration is respectfully requested in view of the following remarks.

I. Claim Objections

Claims 1, 12-18, 20-23, 26-28, 61-62, 65-71, and 75-77 were objected to as containing commas where semicolon would be more appropriate. Further the Examiner noted that “responsive to” must have a colon after the limitation. While Applicant notes that while there is no set statutory form for claims (*see* MPEP 608.01(m)), 37 CFR 1.75(i) requires that where a claim sets forth a plurality of elements, each element or step of the claim should be separated by a line indentation. Applicant has amended to the claims to provide a colon after each “responsive to” limitation where the line indentation permits. Applicant submits that the line indentations and punctuation of the claims are sufficient to separate each of the claim limitations as required by MPEP 608.01(m) and Applicant, therefore, respectfully requests withdrawal of the objections to the claims.

II. The § 112 Rejections

Claims 1-39 and 50-87 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner asserts that the limitation “at least in part” is indefinite because neither the claims nor the specification explains what “at least in part” means.

Applicant respectfully disagrees for the following reasons.

First, Applicant submits that the limitation “at least in part” is clear on its own terms as set forth in the claim. In particular, claim 1 recites a method that includes (for each row of a table copy) associating a timestamp with the row, associating a copy identification with the row, and associating propagation control with the row. The propagation controls indicate whether a change to the row should be communicated to other table copies based at least in part on the timestamp of the change or the copy identification associated with the row. That is, the propagation control utilize *the timestamp of the change or the copy identification associated with the row* to indicate whether a change to the row should be communicated to other table copies.

Second, the claims and the specification provide support for such a limitation. More specifically, claim 6 recites that the propagation controls comprise a delete label and a conflict label. As described in the specification on page 17, lines 10-14, the delete label corresponds to a CopyDelete flag 203 (FIG. 2), and the conflict label corresponds to an ImplicitDelete flag 204 (FIG. 2). With reference to the ImplicitDelete flag 204, for example, the ImplicitDelete flag is set when: 1) a row is implicitly deleted and the copy identification of the row is the same as the copy identification assigned to the source table copy; or 2) when the timestamp of a delete message is higher than a timestamp of an existing row, and the copy identification of the existing row is the same as the copy identification assigned to the target table copy (see specification, page 10 lines 18-23). Accordingly, the ImplicitDelete flag 204 is set based on the timestamp of a change to the row or the copy identification assigned to the row. Similarly, the CopyDelete flag 203 is set based on a copy identification of a row to prevent propagation of a row delete to other table copies from the treated as a new row delete.

III. The § 102/103 Rejections

Claims 1-5, 7-47, and 50-88 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,806,075 (“Jain”).

Applicant respectfully traverses the rejections.

Claim 1 recites asynchronously capturing a change to a row of a given table copy from a database recovery log, in which the database recovery log contains an entry that describes the change to the row of the given table copy.

A. Jain Fails To Disclose Asynchronously Capturing A Change To A Row Of A Given Table Copy From A Database Recovery Log As Recited In Claim 1

Jain discloses a system and method for replicating modifications made at a local site to multiple remote sites in a peer-to-peer environment (see Abstract). With respect to data modification, identification, and retention, Jain discloses that in order to propagate the modifications made to data items in one database to the same data items in another database, it is necessary to retain the modifications until they can be made to the other sites (col. 7, ll. 4-7). Jain discloses that prior art methods – e.g., master/slave prior art systems – use a transactional recovery log (i.e., a redo log) to retain and identify database modifications for propagation (col. 7, ll. 7-9). However, unlike these prior art systems, Jain encodes propagation information directly in tables in the database system. That is, the tables themselves contain all the information necessary to replicate a data modification to other data sites (col. 7, ll. 28-38).

In rejecting claim 1, on page 5 of the Action mailed September 29, 2006, the Examiner cites column 7, lines 7-36 which teaches the redo log. As discussed above, the redo log, however, corresponds to prior art methods in which changes are made only to a master copy, and then transmitted to slave copies. In contrast, Jain discloses techniques for encoding all the information necessary to replicate a data modification within a table of the database system. That is, the tables themselves contain all the information necessary to replicate a data modification to other data sites (col. 7, ll. 28-38).

On page 31 of the Action mailed September 29, 2006, the Examiner asserts that the limitation “asynchronously capturing a change to a row of a given table copy from a database recovery log” is not recited in the rejected claims. However, claim 1 was previously amended to include the limitation and, therefore, such a limitation is not being read from the specification into the claims as asserted by the Examiner.

For the reasons discussed above, Applicant respectfully submits that claim 1 (and the claims that depend therefrom) are, therefore, allowable over Jain.

B. Other Independent Claims

Independent claims 40 and 50 each incorporates limitations similar to those of claim 1. Claims 40 and 50, and the claims that depend therefrom, are also allowable over Jain for reasons corresponding to those set forth with respect to claim 1.

Applicant submits that claims 1-47 and 50-88 are allowable over the reference cited above, and are in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call the undersigned at the telephone number indicated below.

Respectfully submitted,
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